

Teachers' Superannuation Commission

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Government  
Publications

The Fourteenth

# REPORT of the ACTUARY

on the condition

of the

## Teachers' Superannuation Fund

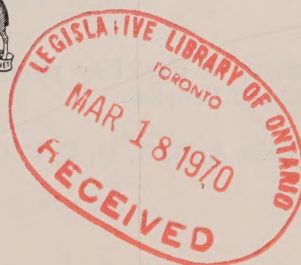
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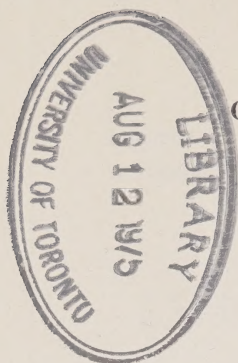
Province of Ontario

as at 31st December 1961



ONTARIO





## Ontario Teachers' Superannuation Fund

### REPORT OF THE ACTUARY

as at 31 December 1961

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#### TITLES OF SECTIONS

Section  
No.

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2. Mortality Rates of Teacher Pensioners.
3. Allowances to Widows and Other Dependants.
4. The Contributors to the Fund During the Three-Year Period 1959-61.
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#### Appendix

Summary of eligibility requirements and rules for calculating the main Pension Benefits.

Schedules A, B, C, D, E, F, G, H, J, K, L, M, N, and O.

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Professor Norris E. Sheppard, M.A.

Fellow of The Institute of Actuaries

University of Toronto,  
Toronto 5, Ont.

16 September 1963.

The Chairman,  
The Teachers' Superannuation Commission of Ontario,  
Department of Education,  
204 Richmond St. West,  
Toronto 1.

Dear Sir:

We have now the honour to report upon the fourteenth investigation into the condition of the Teachers' Superannuation Fund of the Province of Ontario, made as of 31 December 1961, in accordance with Section 5(3) of The Teachers' Superannuation Act. The thirteenth valuation covered the period up to 31 December 1958.

## 1. PENSIONS ALREADY GRANTED TO FORMER TEACHERS

The pensioners' record cards of all teachers who were in receipt of pension at any time during the three-year period from 1 January 1959 to 1 January 1962 were tabulated, and the following is a summary of the results for the three-year inter-valuation period.

Male Pensioners	Former contributing teachers who were pensioned and	Female Pensioners
790	who were in receipt of pensions on 1 January 1959	3,071
+372	whose pensions started in the three-year period	+979
-140	who died in the period	-350
-4	who had their pensions terminated	-12
<hr/> 1,018	who were on the pension list on 1 January 1962	<hr/> 3,688

Further details are given in Schedules A, B, C, D, and E, of the distribution of these pensioners by quinquennial age groups, and by class of pension.



## 2. MORTALITY RATES OF TEACHER PENSIONERS

We have taken out and examined the mortality experienced by both the 1,162 men and the 4,050 women who were in receipt of a pension at any time in the three-year period 1959-61. Each of these two experiences we have compared, age group by age group, with the recorded corresponding experiences of previous inter-valuation periods.

This examination showed a slight trend to lower mortality for both males and females during the service pensionable ages, that is, the sixties and up. On the other hand, there has been a larger proportion of women granted disability allowances at the higher ages, arising from the great body of married teachers who came back into active teaching during World War II. Any higher mortality experienced by these women will tend to offset the trend. There is also a slight trend to higher mortality at ages below sixty, where teachers have been mainly pensioned on the ground of disability.

For the valuation of the pensions already being paid to retired teachers, we have continued to use the  $a(f)$  and  $a(m)$  1900-1920 Annuitants' Tables (ultimate) with the tabular ages written down two years; the resulting mortality rates have been suitably adjusted below age 60 to allow for the somewhat heavier mortality of disabled lives at these ages.

We have been convinced that in the balance this recent mortality experience follows the same over-all pattern as other modern mortality investigations have revealed, namely, that as time moves on the normal mortality rates of the human race at each age tend to decrease. This secular trend was mentioned in our preceding valuation, three years ago.

Accordingly, we have decided to change to more modern mortality tables for evaluating the pension liability in respect of the allowances that will be granted in future to Ontario teachers and their dependants, and for this purpose we have used the ultimate mortality rates of the  $a(55)$  Tables for Annuitants, written down one year in age.

To illustrate the assumed improvement in mortality, we give the following comparison of the expectations of life for actual age 62, between the former mortality tables, which we have used in this valuation for existing allowances, and the new basis, which we have used to value pension benefits yet to be granted.

	Expectations of life for a	
	man aged 62	woman aged 62
$a(m)$ and $a(f)$ down two years	16.50 years	19.84 years
$a(55)$ down one year	17.17 years	20.75 years

Expectations of life do not normally enter into the finding of the actuarially capitalized value of a pension for life, but they do serve as a convenient over-all comparison between the two sets of individual age by age mortality rates in two different mortality tables.

For example, the increase from 16.50 years to 17.17 years shown above for a man aged 62 would generally imply that the mortality rates above age 62 in the second table are lower than the corresponding rates in the first table.

## 3. ALLOWANCES TO WIDOWS AND OTHER DEPENDANTS

Teachers in active service, and pensioners, who died on or after 1 April 1949, left eligible widows who were in receipt of allowances at any time during the three-year period 1959-61 as follows:

	373	widows	receiving an annual allowance as of 1 January 1959,
+	144	"	who were granted an allowance between 1 January 1959 and 1 January 1962,
-	42	"	who died in the period,
-	5	"	who remarried in the period,
<hr/>			
leaving	470	"	receiving an annual allowance as of 1 January 1962.

Teachers and pensioners who died before 1 April 1949 left widows who became eligible for a flat \$300 per annum allowance, starting as of 1 April 1954, as follows:

	164	widows	receiving an allowance as of 1 January 1959,
-	29	"	who died between 1 January 1959 and 1 January 1962,
-	3	"	who remarried in the period,
<hr/>			
leaving	132	"	receiving an annual allowance as of 1 January 1962.

The quinquennial age distributions of these two groups of widows are set out in Schedule F, and their aggregate annual allowances by quinquennial ages in Schedule O.

We have tabulated and deduced mortality rates, age by age, for the experience of all these widows who were in receipt of an allowance at any time during the three-year period. This experience we have also compared with the past experiences recorded since 1949. We are satisfied to continue to use the a(f) and a(m) ultimate annuitants' tables written down two years (suitably adjusted to allow for future remarriages) for the evaluation of the allowance payable to the existing widows and other dependants.

For allowances which will be granted to widows and dependants of teachers who will die in future, we have used the ultimate mortality rates of the a(55) Tables for Annuitants, written down one year in age.

In addition to the widows, we find that as of 31 December 1961 allowances were being paid to

- 1 widower of a former teacher,
- and 5 families of orphans of former teachers who had died in service, or of widows who had remarried.

Besides the widows and dependants tabulated above, and the prospective widows and dependants of male teachers and pensioners, each of the following women, each of whom was in receipt of an allowance on 1 January 1962, could on death place a reversionary annuitant on the Fund as follows—

- 3 pensioned women teachers with eligible children
- 15 " " teachers each with an eligible dependent husband
- 6 " " teachers each with a female co-annuitant

60 widows with dependent children. The extra liabilities imposed on the Fund for these possible reversionary allowances are included in the Valuation Statement in the total liabilities for the corresponding groups of existing pensioners.

#### 4. THE CONTRIBUTORS TO THE FUND DURING THE THREE-YEAR PERIOD 1959-61

The inter-valuation three-year period experience of the contributors was taken out for this valuation using the census method. Punched cards were used for the larger groups, treating men and women separately.

##### *Active teachers:*

A census tabulation by age was made as at 31 December of each year of all the teachers employed in that calendar year, excluding any teacher who



took a cash refund during that year, who died during that year, or who ceased to be employed during that year and was granted a pension. Each year's census was divided into two tabulations:

- (i) one for contributors each with less than 4 months' service in that year;
  - (ii) the other for contributors each with 4 or more months' service in that year; showing in each case for each calendar year of birth
    - number of teachers,
    - aggregate service during the calendar year just ended,
    - aggregate teachers' contributions for the calendar year,
    - aggregate service up to the end of the year,
    - aggregate teachers' contributions up to the end of the year.
- Also, the tabulation for the women contributors under item (ii) was sub-divided according to marital status: single, married, member of religious order.

#### *Deaths while in service:*

A manual tabulation was made of the deaths occurring in the three-year period ended 31 December 1961.

#### *Retirements:*

Tabulations were made of the pensions granted during the three-year period ended 31 December 1961.

#### *Withdrawals: (excluding refunds for periods under 20 days):*

For each calendar year and each sex, three tabulations were made, of those teachers who took a cash refund in that year (grouped by school year of birth).

one, for those who taught at least 4 months in some one calendar year *before* the calendar year of withdrawal, including in such prior years only the one year preceding the last actuarial valuation date and the years since that date;

two, for those who taught at some time during the prior years just mentioned, but not for 4 months in any one of them;

three, for those who did not teach during these prior years.

Aggregate refunds and service were shown for each school year of birth within each of the three tabulations.

The following aggregate totals for the three-year period will give a brief summary of the scope of the various tabulations used as a basis for our statistical studies of the experience of regularly employed teachers.

MEN	Contributing teachers	WOMEN
14,198	who were considered employed at the end of 1958	32,819
805	who quit the profession taking a cash withdrawal	5,867
50	who died in service leaving an eligible dependant	
48	who died in service where a cash refund was made	171
372	who were granted a pension to begin between January 1959 and January 1962	979
19,142	who were considered to be contributing as of 31 December 1961	38,258

Distributions by age groups of the numbers of teachers considered to be in service on 31 December 1961 are set out in Schedules G and H.

In addition to these 19,142 men and 38,258 women there were recorded 8,373 men and 32,519 women, each of whom had made a contribution to the Fund at some time during the years 1955 to 1961, but had not been employed for 4 months during 1961 and had not yet taken a final refund. The average total contributory service for these teachers was very short, being 1.23 years for the men and 1.93 years for the women, up to the end of 1961. In the Balance Sheet (section 8) we show a liability for refunds to these 40,892 teachers from the assets of the Fund.

The three-year service experience of all the teachers considered to be employed during the three-year period was analyzed, for men and women separately, in order to derive the rates of separation for each attained age, i.e. the rates of withdrawing, of death in service, and of going on pension.

After comparing these newly found rates of separation with those that we had used for both our 1958 and 1954 valuations, we made what we considered appropriate adjustments in the rates of separation to be assumed for the future.

The following is a brief outline of these changes that we have made in the rates of separation from service which form the bases for our service tables used in this valuation:

*For MEN teachers*—the service table was extended by  $1\frac{1}{2}$  years to age  $70\frac{1}{2}$ ; *withdrawal from service*—rates below age 32 were reduced, rates above that age were increased slightly, and extended to age  $61\frac{1}{2}$ ; *death while in service*—rates below age 32 were reduced, rates above age 48 were increased; *going on pension*—rates below age 57 were reduced, and increased above that age.

*For WOMEN teachers*—the service table was extended by  $1\frac{1}{2}$  years to age  $69\frac{1}{2}$ ; *withdrawal from service*—rates were slightly lowered up to the middle twenties and then raised a little thereafter; *death while in service*—minor upward changes were made at the very young ages; *going on pension*—rates were lowered considerably at all ages below age 60.

It will be noticed that the number of men teachers employed had increased over the three years by about 35%, whereas the number of women teachers had risen by only about 17%.

Recent increases in salary schedules have presumably encouraged a greater proportion of men than women to enter and stay in the profession than in the past, and in addition more men from other vocations, as well as teachers from other parts of Canada and the Commonwealth, have begun teaching in Ontario. More and more of these men are being attracted into the profession in middle life. Many are veterans of World War II.

It may be of interest to give an analysis of the 38,258 women according to marital status, separating out the number belonging to the Roman Catholic Religious Orders.

	Number	1961 %	(1958)	Average 1961 contributory Salary Rate
Single women	15,778	41.2	(52.4)	\$4,800
Women who had been married (including widows)	20,226	52.9	(41.1)	4,510
Women members of Religious Orders	2,254	5.9	(6.5)	2,530
Total number of women teachers	38,258	100.0	(100.0)	\$4,500



Since the proportion of younger women has a large bearing on the proportion married, we give the following data by age groups from the four most recent valuations:

Age Group	Proportion of women who had been married			
	1951	1954	1958	1961
over 34	36.4%	50.7%	59.4%	65.3%
over 54	28.7%	41.5%	52.9%	60.2%

As in the 1958 data, the single woman continued to contribute on an average salary slightly higher than the married woman; the latter is contributing on an average salary more than 75% above that of the average woman member of a Religious Order.

## 5. SERVICE AND SALARIES OF PRESENT CONTRIBUTORS TO THE FUND

The tabulations for the 19,142 men teachers, and the 38,258 women teachers, who were considered to be employed at the end of the calendar year 1961 showed, for each attained age,

- (i) the number of teachers,
- (ii) the aggregate amounts of service and 6% contributions paid during the calendar year 1961,
- (iii) the total service and the total teachers' contributions up to 31 December 1961.

From item (ii) we produced for each sex a 1961 salary scale according to attained age. In Schedule J we have set out these graduated 1961 annual salary scales, by attained age, compared with the corresponding scale for each of the previous three valuations.

For both men and women it appears that salaries for all ages had generally increased by about 16% to 25% from 1958 to 1961. At the main pensionable ages the average rise in salaries was about 21% during the three years, over and above any increases that an individual teacher may have received for the three years' extra seniority. At the same ages, the average rise during the ten years 1951-1961 was about 95% for men and 80% for women.

This steady rate of increase over the years following World War II has produced a steady rise in the level of new pensions being granted each year. There has been a related rise in the average pension in force at any given time; this rate of increase also depends on the rate at which old pensioners are replaced by new.

Both these effects are illustrated in Schedule K for the three years from 1 January 1959 to 31 December 1961.

Our impression obtained from working out pensions granted during the calendar years 1962 and 1963, is that further general increases in salaries have taken place since 1961. We have, however, in this valuation taken into account only such increases in salaries as could be measured by our salary scales, covering promotions and like increases because of seniority, but not covering general salary improvements beyond 1961.

## 6. PENSION COVERAGE FOR THE TEACHER

Because the superannuation of a contributing teacher is the principal object of the Fund, and the most costly, we again give a brief list of the various types of Ontario teachers' pensions, classified hereunder according to age at retirement and length of employment as a teacher.



For convenience the various types of pensions that are granted to teachers under sections 25 and 26, 27 and 28, 29, and 30, of the Act, have been designated by the capital letters A, B, C, and CB, respectively.

Age at retiring	Years employed as a teacher				
	15-24	25-29	30-34	35-39	40 or more
					A
Below 62	C CB	C CB	B C CB	B C CB	
				A	A
62 or more	C CB	B C CB	B C CB		

A brief description of the eligibility requirements for each Class, including widows' allowances under Classes D and E, and of the rules for determining the amount of pension, is given in the Appendix.

A distribution of teachers' pensions according to these Classes is given for each sex in Schedules B, C, D, E, and K.

## 7. THE ASSETS OF THE FUND AND THE INTEREST EARNINGS

From the reports of the Auditor for the fiscal years ended 31 October 1961 and 1962, we find that the Fund held at 31 December 1961 the following debentures of the Province of Ontario:

\$31,200,000 at  $4\frac{3}{4}\%$  due 1 November 1982,  
 43,000,000 at  $4\frac{1}{2}\%$  due 1 November 1992,  
 and 146,000,000 at  $4\frac{1}{2}\%$  due 1 November 1962,

making \$220,200,000 in securities issued by the Province and held in the Fund.

In addition, the regular contributions from the teachers and the Province for the calendar year 1961 were paid into the Fund with accrued interest on 31 October 1962. After taking these 1961 contributions into account and making necessary adjustments for accrued interest and expenditures for the two-month period following 31 October 1961 we estimated that \$259,881,000 could be taken as the effective amount of the Fund at 31 December 1961.

Under the Act the Province has paid  $4\frac{1}{2}\%$  on the aggregate of the yearly surpluses of the Fund for the ten years ending 1 November 1962, and issued at that time a single debenture for the total amount on 1 November 1962, including the \$146,000,000 above, bearing interest at  $4\frac{1}{2}\%$  until it matures in November 2002.

The effective average rates of interest earned by the Fund were as follows:

Year ended 31 October	Rate per annum
1957	4.614%
1958	4.638%
1959	4.628%
1960	4.647%
1961	4.576%

Having in mind the interest earnings shown above we have assumed that the funds which may be allocated to the present teachers will earn 4.50% per annum, and we have used that rate throughout the long service lifetime and subsequent pension lifetime of these teachers.

## 8. VALUATION STATEMENT AS AT 31 DECEMBER 1961

We have made our monetary calculations of the liabilities for the future benefits at present set out in The Teachers' Superannuation Act, with amendments up to the present time. We have also calculated the value of the future 12% (6% from the teachers + 6% from the Province) contributions on teachers' salaries. In accordance with the various assumptions outlined above, we find the financial situation to be as follows:

### VALUATION BALANCE SHEET as at 31 December 1961

#### Liabilities

Value of future pension payments to be paid to		
1,018 present men pensioners, with allowances continued in part to eligible wives.....	\$32,857,000	
3,688 present women pensioners with allowances continued in part to eligible dependants.....	68,854,000	
470 present widows receiving ordinary allowances.....	6,369,000	
132 present widows of former teachers or pensioners who died before April 1949.....	350,000	
5 present families of orphans and 1 widower.....	17,000	\$108,447,000
Value of expected pensions continued up to one-half to eligible dependants, payable in respect of the		
19,142 present men contributors.....	\$343,942,000	
38,258 present women contributors.....	416,063,000	760,005,000
Value of expected allowances payable to dependants on death of contributors while employed in respect of		
19,142 present men contributors.....	\$30,455,000	
38,258 present women contributors.....	173,000	30,628,000
Value of expected refunds of contributions payable on the death of contributor while employed without eligible dependants, in respect of		
19,142 present men contributors.....	\$ 2,263,000	
38,258 present women contributors.....	7,447,000	9,710,000
Value of refunds on withdrawal from the profession, in respect of the		
19,142 present men contributors.....	\$ 11,124,000	
38,258 present women contributors.....	25,479,000	36,603,000
Liability for future refund payments to an additional 40,892 teachers who had individually small credits in the Fund and were not included in the valuation figures above (see section 4)		
8,373 men.....	\$ 1,553,000	
32,519 women.....	6,973,000	8,526,000
Value of future expenses chargeable to present contributors and pensioners.....		2,615,000
		<u>\$956,534,000</u>

#### Assets

Funds adjusted to 31 December 1961.....		\$259,881,000
Value of 6% contributions on future salaries of the active teachers		
19,142 men now contributing.....	\$106,937,000	
38,258 women now contributing.....	95,008,000	201,945,000
Value of Province's matching 6% contributions.....		201,945,000
Net unfunded* accrued liability in respect of the living pensioners and active teachers as at 31 December 1961.....		292,763,000
		<u>\$956,534,000</u>

Summarized details by quinquennial attained age groups, of the main contingent liabilities and assets capitalized in this balance sheet, will be found in Schedules L, M, N, and O.

\*When a liability is unfunded it means that no immediate provision has been made to liquidate it during the service lifetime of the members causing the liability.



## 9. THE DISCLOSED DEFICIENCY IN THE FUND

The Balance Sheet in Section 8 above, shows, after all the capitalized contingent liabilities and assets are taken into account, that the unfunded accrued liability, or deficit, as of 31 December 1961, in respect of all the then existing pensioners, dependants, and regularly contributing teachers, was \$292,763,000.

The preceding valuation, made three years previously as at 31 December 1958, showed a corresponding deficit of \$203,886,000.

Thus the deficiency at the end of the three-year period had increased by some \$89 million. As noted in Section 5, salaries rose considerably during the three years. The general increase in salaries is the main cause of the larger deficit, for the following reason. The middle-aged and older teachers will receive pensions based on their total years of service applied to these higher salaries earned during their final ten years of employment. It is true that the Fund will have received higher contributions on their behalf for their service *after* the general increases came into effect, but no such extra contributions will have been made by these teachers or by the Province for the years of service rendered *before* the general increases.

We indicated in our 1958 valuation report that an immediate general increase in the 1958 salaries of 5% would have increased the then disclosed deficit by some \$15 million. The general level of salaries has actually increased by some 21% over the three-year period, which accounts for some \$60 million of the \$89 million increase in the deficit between the two valuation results. Another \$25 million is accounted for by the missing 4½% interest for three years on the 1958 disclosed deficit, less the special Provincial grants of \$1 million each year. The \$4 million balance of the increase in the deficit can be accounted for by the assumed lighter mortality rates for future pensioners, balanced against such favourable factors as: the interest earned in excess of 4½% on the assets during the three years; the margin in the 12% contribution rate for the greatly increased number of young teachers during the three years; the reduction in the assumed rates of retirement for women under 60; and some reduction, based on the more recent statistical experience, in the proportions of men assumed to have an eligible wife at death in service or at retirement.

This \$293 million deficit in respect of the contributors existing in 1961 will continue to grow, quite apart from any general increases in salaries, at 4½% interest per annum—less any special annual grants such as the \$1 million grant that has been made by the Province each year since 1952. The net growth of this deficit at interest will thus be of the order of \$12 million a year.

As in 1958, the shortage in the Fund is again about \$33 million larger than the accumulated funds on hand. The funds on hand were:

\$259 million as at 31 December 1961

of which \$108 million would be required, along with 4½% interest, to pay the then existing allowances;

and \$9 million would be needed to pay refunds to 40,892 occasional teachers;

Thus there is left

\$142 million, made up of

\$95 million contributed by the existing 57,400 regular contributors,

and only \$47 million left from all the Government contributions made since the year 1917 and from all the interest on *all* contributions throughout this whole period up to the end of the year 1961.

This \$142 million provided for the 57,400 regular contributors at the end of 1961 an average "stake" of less than \$2,500, an amount equivalent to only a few years of the 12% contributions at current salary levels. The corresponding figure in 1958 was \$2,060; and \$1,650 in 1954. As we pointed out in the 1958 report, amounts of this size will fall far short of covering the cost of future benefits for the average teacher in middle life, even after allowing for all future contributions on his behalf.

For each sex and age group, the average personal contributions up to the end of 1961 are shown in Schedules G and H. It can be readily shown from these schedules that the older teachers' average contributions per year of service are much smaller than younger teachers'.

The shortage for the older teachers will have to be met out of contributions in future years from new teachers and from the Province. Section 8 of the Act reads:

When the payments into the Fund in any year are insufficient to make the required payments out of the Fund, the deficiency shall be made up out of the Consolidated Revenue Fund.

In this connection we point out that the total amount paid out in benefits in the fiscal year ended 31 October 1962 just about equalled *total* receipts (including both contributions and interest) only nine years previously, namely, in the year ended 31 October 1953. A slowing down of the rate of population growth in Ontario will shorten this nine-year gap.

Although \$259 million appears to be a large sum of money, it should be borne in mind that it is relatively small when measured against an annual rate of pay of \$289 million to the 57,400 regular contributors at the end of 1961. A pension plan paying a 2% final salary pension should have assets equal to about two years' pay-roll to be actuarially solvent.

## 10. SOME COMMENTS ON PENSION COSTS

The full cost to the Fund of granting a typical A-Pension is often overlooked. In this connection the following examples may be interesting.

	MEN		WOMEN	
Specimen age at retirement	62	65	62	65
Cost of providing at retirement				
(a) a single life annuity of \$3,500 per annum	\$39,500	\$35,900	\$44,900	\$41,500
(b) a married man's annuity of \$3,500 per annum continued one-half to his widow (considered to be three years younger than the teacher)	\$46,100	\$42,700		

The cost of annuities of more or less than \$3,500 per annum to begin at the indicated ages will be in proportion to the amounts given above.

A \$3,500 A-Pension will arise from 70% of a final ten-year average salary of \$5,000 provided the teacher has at least 35 years' service credit and has attained at least age 62. The total personal contributions up to 1961 that have actually been made by an individual teacher of this age and salary will rarely have amounted (at 4½% interest) to as much as one-quarter of the costs



shown above. The other three-quarters, or more, is being met by regular (and special) Government contributions and by contributions transferred, in effect, from younger teachers. The regular Government contributions in the past have never exceeded the regular teachers' contributions; a history of the contribution rates is shown in the following schedule.

Percentage contribution rate	Dates from which the contribution rate has been applied to the salary	
	by the teacher	by the Province
2½%	1 April 1917*	1 April 1917*
3%	1 Sept. 1936	
3½%	1 Sept. 1940	1 Sept. 1943
4%	1 Sept. 1945	1 Sept. 1945
6%	1 Sept. 1949	1 Jan. 1956

\*No contributions have ever been made for service rendered before this date, although pension benefits based on such service continue to be paid out of the Fund.

This schedule illustrates the common trend of rising costs of pension plans during the 20th century. Throughout the English-speaking world the trend has been especially strong in Government-sponsored plans.

The combination of rising salaries and rising contribution rates has resulted in the older teacher's total contributions being disproportionately small in terms of his total service. As already mentioned, this can be seen by calculating the average contributions per year of service from the figures in Schedules G and H.

Another way of illustrating the disparity is to calculate what the total personal contributions in these schedules would have been if each year's contribution had been made at the 1961 rate of contribution. It will be found that, for ages above 44, the actual average contributions are *less than half* of what they would have been on the 1961 basis. The resulting shortage for middle-aged and older teachers is one of the chief causes of the over-all deficit in the Fund, the other main cause being the complete absence of contributions for service credits before 1 April 1917.

## 11. FURTHER OBSERVATIONS FROM THE ACTUARY

We again confirm that the 12% (6%+6%) contribution rate now in force will cover the cost of the currently promised benefits for *new* teachers, i.e. those who will have the full 12% contributions made on their behalf at present salary levels throughout their entire careers. One has only to look at the negative net liabilities for the younger attained age groups up to age 30 in Schedules L and M. There is one major qualification, however. We are assuming no further general salary increases, except those which can be covered by the slight margin in the earned interest rate that will develop from 1 November 1962 as new yearly surpluses of income over expenditures are invested with the Province on the 5% interest basis that will apply to them after that date.

It must again be pointed out that the Fund has not received 12% contributions over the years but only at the rates shown in Section 10 of this report—except for the additional \$1 million yearly grant from the Province since 1952.

In addition, the Boards of Education throughout the Province have independent control of salary scales (which means control of pension levels), and the age and service conditions for the compulsory retiring of teachers. In the computation of a teacher's pension, his pensionable service is applied to the *final* ten years' average salary on which contributions have been paid.

One other observation should be made. To place the Fund upon a proper actuarial basis the Consolidated Revenue Fund might assume payment of all teachers' pensions and allowances now in force, thereby reducing the deficit to about \$184 million. This balance could then be covered either by the Consolidated Revenue Fund taking on a certain proportion of future pensions in respect of service up to a certain date, or by agreeing to pay an extra  $5\frac{1}{2}\%$  in annual contributions.

The very least the Province should begin to do is to pay full  $4\frac{1}{2}\%$  valuation interest on the disclosed deficit, or alternatively an additional  $4\frac{1}{2}\%$  of salaries per annum.

## 12. CONCLUDING REMARKS

In this report we have called attention to the Appendix and the fourteen schedules, wherein we have attempted to illustrate the scope of the data made available to us, mainly through the use of punch cards, in the making of this triennial valuation. We have tried throughout to provide some summarized details which may be of interest not only to present contributors but also to other interested parties, including those already on pension.

In going over the annual financial statements of the Commission, we point out that the financial cost of administering the Fund, so far as expense to the contributors is concerned, is exceedingly low in comparison with other pension funds.

We owe much to the energy and efficiency of the Secretary, his Executive Assistant, and the various members of the staff of the Commission, who have without delay been of great assistance to us throughout the long period over which we have had this review under way.

All of which is respectfully submitted.

N. E. SHEPPARD



Summary of the eligibility requirements for, and the rules for calculating, the main pension benefits payable under the 1949 Act and Amendments to date, upon which the present valuation has been based.

## PENSIONS OR ALLOWANCES TO RETIRED TEACHERS

Class	Eligibility Requirements	Annual Amount of Benefit Payable (Minimum \$600.00)
A-Pension:	Available at age 62 or higher with at least 35 years' service or at any attained age after 40 years' service.	Annual allowance of 2% of average annual salary for last ten years' service, multiplied by number of count years of service. Years before 1.4.1917 counted as half years. Maximum: 35 count years.
B-Pension:	Available at age 62 or higher with between 25 and 30 years' service, provided the teacher has served for 5 years after age 55 or at any attained age after 30 years' service.	Same rule as for A-Pension but with a 5% deduction from computed pension for each service year short of 30 years. Minimum deduction 5%.
C-Pension:	Available after at least 15 years' service provided teacher is permanently disabled and not able to earn his livelihood.	Same rule as for A-Pension, with a minimum 5% deduction from computed pension, and an additional 5% deduction for each year that attained age falls below age 61. Maximum deduction, 50%.
CB-Pension:	Available after at least 15 years' service provided teacher is permanently disabled and not able to teach.	Same rule as for A-Pension.

## ANNUAL ALLOWANCES TO WIDOWS AND DEPENDANTS

Class	Eligibility Requirements	Annual Amount of Benefit Payable (Minimum \$300.00)
D-Pension:	Available to widow of a teacher who married before attaining age 60, and who dies in service after at least 15 years' service or available to widow of a pensioned teacher who married before age 60 and before going on pension.	Annual allowance of 1% of average annual salary for last ten years' service, multiplied by number of count years of service. Maximum: 35 count years. Reductions for widow more than 10 years younger than husband.

A similar allowance is payable to a widower meeting prescribed conditions, or to orphans under age 18.

E-Pension: Available since 1 April 1955 to a widow who makes application and has the eligibility requirements given above for a D-Pension, but where her husband's death occurred before April, 1949.

Annual allowance equal to one-half allowance being paid to retired teacher, except for a CB-Pensioner who dies while awaiting a medical re-examination, in which case the widow may be paid one-half of C-Pension. Reductions as above.

A level allowance of \$300 per annum payable as from 1 April, 1954.

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE A

### PENSIONED TEACHERS

Experience from 1 January 1959 to 31 December 1961

MEN PENSIONERS WHO					WOMEN PENSIONERS WHO				
were in receipt of a pension 1.1.1959	during the three years had their allowances			Age Group	were in receipt of a pension 1.1.1959	during the three years had their allowances			were in receipt of a pension 31.12.1961
	begun	terminated by				begun	terminated by		
		death	suspension				death	suspension	
1	1			-39	4	1			1
1	5			40-44	12	14			16
14	12		1	45-49	65	46			49
24	25			50-54	132	134			187
110	147		1	55-59	511	532			559
275	164		1	60-64	890	181			1,036
168	18		1	65-69	584	57			863
92				70-74	417	12			453
				75-79	287	1			313
57				80-84	125	1			147
33				85-89	39				56
14				90-94	5				8
1				95-					
790	+ 372	- 140	- 4	= 1,018	Totals	3,071	+ 979	- 350	= 3,688
70.3	63.8	73.7	64.0	70.2	Average Ages	70.2	62.3	77.1	63.3
									70.4



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE B

### MEN TEACHERS PENSIONED DURING THE THREE YEARS 1959-61

Summarized particulars for the 372 men teachers who were granted pensions during the three calendar years 1959-61, by age at pensioning, average service and average pension for each of the four Classes, A, B, C, and CB, of pension granted.

Age last birthday at pensioning	CLASS A pensioners			CLASS B pensioners			CLASS C pensioners			CLASS CB pensioners		
	Number cases	Average		Number cases	Average		Number cases	Average		Number cases	Average	
		service	pension		service	pension		service	pension		service	pension
		years	\$		years	\$		years	\$		years	\$
-44							1	15.3	1,501	2	23.1	1,752
45-49				3	31.0	1,954	3	24.9	1,892	6	31.5	2,477
50-54				9	34.4	2,632	5	29.8	3,262	4	34.9	3,750
55-59	7	39.5	4,337	20	31.2	3,191	6	31.3	3,270	6	26.6	2,875
60-64	118	39.9	4,545	26	30.6	3,096	3	27.2	2,982	1	30.4	1,504
65-69	131	41.5	4,678	5	29.7	2,499	2	27.7	1,969	1	15.0	666
70-74	10	41.2	3,129									
75-79												
80-84												
85-89												
Totals	266			63			23			20		
Averages		40.7	4,552		31.3	2,958		28.7	2,736		29.0	2,639

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE C

### PENSIONED MEN TEACHERS

Comparative numbers of pensioners as of 1 January 1962 and average allowances being paid, according to attained age and class of pension granted the teacher, together with the proportion married with a wife eligible for a reversionary allowance should she survive her husband.

Attained Age Group 1.1.1962	CLASS A pensioners		CLASS B pensioners		CLASS C pensioners		CLASS CB pensioners		ALL CLASSES combined		Proportion with eligible wives
	number living	average pension	number living	average pension	number living	average pension	number living	average pension	number living	average pension	
-44					1	\$1,501	1	\$923	2	\$1,212	100.0%
45-49					1	1,332	2	1,751	3	1,612	66.7%
50-54					2	1,807	6	1,103	8	1,279	62.5%
55-59	4	\$4,387	11	\$2,225	8	3,084	15	2,283	38	2,656	92.1%
60-64	59	4,498	28	2,739	13	2,503	12	2,612	112	3,625	84.8%
65-69	284	4,264	53	2,620	18	2,296	16	1,205	371	3,802	86.0%
70-74	185	3,329	58	2,386	10	1,603	8	2,104	261	3,016	82.8%
75-79	76	2,514	34	1,752	2	1,869	6	1,225	118	2,218	72.9%
80-84	33	2,228	18	1,522	1	1,324	4	1,008	56	1,898	48.2%
85-89	25	2,071	5	1,773	1	600	2	973	33	1,915	54.5%
90-94	8	1,782	3	1,809	2	890	1	1,339	14	1,629	42.9%
95-	1	2,897			1	1,326			2	2,112	0.0%
Totals	675	\$3,620	210	\$2,284	60	\$2,163	73	\$1,745	1,018	\$3,124	79.7%



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE D

### WOMEN TEACHERS PENSIONED DURING THE THREE YEARS 1959-61

Summarized particulars for the 979 women teachers who were granted pensions during the three calendar years 1959-61, by age at pensioning, average service and average pension for each of the four Classes A, B, C, and CB, of pension granted.

Age last birthday at pensioning	CLASS A pensioners			CLASS B pensioners			CLASS C pensioners			CLASS CB pensioners		
	Number cases	Average		Number cases	Average		Number cases	Average		Number cases	Average	
		service	pension		service	pension		service	pension		service	pension
		years	\$		years	\$		years	\$		years	\$
-44												
45-49				2	30.5	956	1	19.5	1,296	9	22.1	1,039
50-54				20	31.6	1,684	3	17.7	725	10	27.3	1,859
55-59	40	40.3	3,305	52	34.4	2,352	16	26.9	1,808	20	29.2	2,099
60-64	382	40.5	3,257	96	31.5	2,439	22	27.6	2,054	26	22.6	1,032
65-69	98	42.5	2,802	55	28.0	1,655	17	20.5	1,700	10	19.6	1,102
70-74	28	44.9	1,803	15	28.3	1,304	8	24.5	1,081	6	22.9	1,275
75-79	8	47.5	1,199	2	30.6	1,426	2	24.4	866			
80-84	1	61.0	869									
85-89	1	62.3	997									
Totals	558			242			98			81		
Averages		41.2	3,070		31.1	2,089		24.5	1,603		24.4	1,425

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE E

### PENSIONED WOMEN TEACHERS

Comparative numbers of pensioners as of 1 January 1962 and average allowances being paid, according to attained age and class of pension granted the teacher.

Attained Age Group 1:1:1962	CLASS A pensioners		CLASS B pensioners		CLASS C pensioners		CLASS CB pensioners		ALL CLASSES combined	
	number living	average pension	number living	average pension	number living	average pension	number living	average pension	number living	average pension
44					1	\$1,296			1	\$1,296
45-49					6	729			16	785
50-54			15	\$1,313	14	1,298	10	\$819	49	1,205
55-59	4	\$3,545	70	1,788	55	1,470	20	1,059	187	1,579
60-64	292	3,274	159	2,052	55	1,673	58	1,293	559	2,557
65-69	666	2,758	218	1,700	91	1,214	61	928	1,036	2,292
70-74	531	1,988	208	1,227	72	960	52	879	863	1,652
75-79	265	1,434	126	1,083	27	760	35	882	453	1,253
80-84	160	1,131	98	950	22	825	33	793	313	1,017
85-89	79	974	33	834	18	756	17	731	147	888
90-94	38	1,013	8	834	7	712	3	769	56	937
95-	5	781	3	600					8	713
Totals	2,040	\$2,227	938	\$1,453	368	\$1,178	342	\$974	3,688	\$1,809



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE F

### WIDOWS

Experience from 1 January 1959 to 31 December 1961

Eligible widows whose husbands died in the period 1 April 1949—31 December 1961					Age Group	Widows eligible under the 1955 amendment (husbands died before 1 April 1949)			
number in receipt of a pension 1.1.1959	number of widows whose allowances were			number in receipt of a pension 31.12.1961		number of widows whose allowances were			number in receipt of a pension 31.12.1961
	begun in the period	by death	terminated otherwise			terminated	by death	otherwise	
6				1	-39				
11	4		1	11	40-44	2		1	1
28	13		1	22	45-49	5		2	5
39	28		1	57	50-54	22			4
48	22	1		66	55-59	18			22
45	25	3	2	69	60-64	28			24
42	18	1		66	65-69	15	2		17
60	14	7		57	70-74	23	3		17
38	9	10		54	75-79	34	7		24
40	8	8		41	80-84	12	4		13
14	3	9		22	85-89	4	5		5
2		3		4	90-94	1	1		
					95-				
373	+ 144	- 42	- 5	= 470	Totals	164	- 29	- 3	= 132
65.1	61.5	79.0	54.1	65.7	Average Ages	71.6	82.2	60.5	72.7

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE G MEN TEACHERS

Summarized details by quinquennial attained age groups of the 19,142 men teachers, each of whom had been employed for at least four months during the calendar year 1961, and was considered to be still in the service as at 31 December 1961.

Attained age group in 1961	Number of Men Teachers	Average number of years employed		Average amount of personal contributions credited to each man	
		up to 31:12:1961	in the calendar year 1961	for 1961 (6%)	up to 31:12:1961
-19	129	0.70	.541	\$ 95.8	\$ 122
20-24	3,718	1.67	.739	163.2	338
25-29	4,105	3.97	.905	271.5	947
30-34	3,070	6.85	.941	352.4	1,760
35-39	2,169	9.43	.955	412.0	2,435
40-44	1,424	12.77	.967	448.9	2,984
45-49	1,625	19.02	.976	490.8	3,977
50-54	1,400	24.09	.983	510.3	4,676
55-59	997	30.33	.993	529.4	5,533
60-64	413	32.90	.992	538.2	6,020
65-69	78	27.42	.949	474.3	4,595
70-	14	15.39	.848	270.1	2,392
Total	19,142				
Over-all average		10.09	.905	347.5	2,168



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE H

### WOMEN TEACHERS

Summarized details by quinquennial attained age groups of the 38,258 women teachers, each of whom had been employed for at least four months during the calendar year 1961, and was considered to be still in service as at 31 December 1961.

Attained age group in 1961	Number of Women Teachers	Average number of years employed		Average amount of personal contributions credited to each woman	
		up to 31.12.1961	in the calendar year 1961	for 1961 (6%)	up to 31.12.1961
-19	1,468	0.74	.566	\$ 97.8	\$ 125
20-24	11,323	2.21	.802	170.5	425
25-29	5,349	5.17	.883	234.1	1,057
30-34	3,069	7.51	.892	260.1	1,498
35-39	2,358	9.09	.902	266.0	1,636
40-44	2,332	11.05	.916	279.6	1,848
45-49	3,555	13.68	.940	287.8	2,022
50-54	3,527	17.79	.951	299.4	2,420
55-59	3,240	22.46	.959	301.9	2,762
60-64	1,517	24.73	.955	291.8	2,808
65-69	428	23.12	.909	222.1	2,107
70-	92	26.33	.848	171.1	1,798
Total	38,258				
Over-all average		9.36	.872	235.6	1,396

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE J

### ACTIVE TEACHERS

Comparative graduated annual salary rates according to attained age, used respectively in the 1951, 1954, 1958 and 1961 valuations of the Fund. The 1961 rates were based on the actual salaries received by teachers who were employed for at least four months during the calendar year 1961.

MEN				AGE	WOMEN			
1951	1954	1958	1961		1951	1954	1958	1961
\$	\$	\$	\$		\$	\$	\$	\$
2150	2565	3150	3700	22	2035	2335	3050	3600
2450	2985	3750	4480	25	2200	2685	3480	4020
2735	3350	4340	5240	28	2295	2935	3780	4380
3005	3700	4850	5960	31	2385	3050	3960	4620
3250	4015	5300	6560	34	2445	3150	4050	4780
3485	4315	5700	7100	37	2480	3215	4100	4900
3695	4585	6080	7520	40	2540	3265	4130	4960
3890	4800	6400	7900	43	2603	3315	4160	5020
4070	5000	6670	8200	46	2673	3365	4190	5080
4225	5200	6890	8420	49	2740	3415	4220	5120
4370	5350	7050	8600	52	2800	3465	4250	5150
4465	5500	7170	8720	55	2885	3515	4280	5180
4530	5600	7280	8840	58	2945	3565	4310	5200
4590	5685	7370	8960	61	2925	3550	4340	5200
4600	5700	7440	9040	64	2500	3365	4290	5200
4600	5700	7500	9100	67	2000	2885	4000	5200



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE K

### AVERAGE PENSIONS, NEW AND OLD

A comparison of average new pension allowances granted to teachers during 1959, 1960 and 1961 with the averages for all teachers' allowances in force at the beginning and end of the three years.

Average allowance among	Existing pensioners 1:1:1959	New pensioners in 1959	New pensioners in 1960	New pensioners in 1961	Existing pensioners 31:12:1961	Percentage rise 1:1:59 to 31:12:61
MEN						
Class A	\$3,017	\$4,246	\$4,632	\$4,683	\$3,620	20.0%
Class B	1,976	2,570	2,986	3,241	2,284	15.6
Class C	1,955	2,157	4,512*	2,940	2,163	10.6
Class CB	1,424	2,483	1,771	3,407	1,745	22.5
MEN All Classes	\$2,591	\$3,637	\$4,219	\$4,245	\$3,124	20.6%
WOMEN						
Class A	\$1,879	\$2,966	\$2,908	\$3,304	\$2,227	18.5%
Class B	1,222	1,876	2,232	2,140	1,453	18.9
Class C	1,013	1,668	1,565	1,578	1,178	16.3
Class CB	829	1,113	1,276	1,702	974	17.5
WOMEN All Classes	\$1,521	\$2,473	\$2,483	\$2,643	\$1,809	18.9%
Both sexes	\$1,741	\$2,770	\$3,010	\$3,074	\$2,094	20.3%

\*Only two men

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE L MEN TEACHERS

Summary of the values of the contingent benefits and contingent future contributions as at 31 December 1961, under The Teachers' Superannuation Act with amendments to date, in respect of the 19,142 men who were considered as employed at the end of the calendar year 1961.

Age last Birthday	Number of Men	Value of Future Benefits			Total Liabilities	Value of Future Contributions (6% + 6%)	Net Liability
		On quitting the profession	On death in service	On being pensioned			
		\$	with eligible dependants	without eligible dependants	\$	\$	\$
-24	3,847	2,881,000	2,642,000	352,000	22,506,000	39,218,000	- 10,837,000
25-29	4,105	3,267,000	4,105,000	465,000	35,139,000	48,974,000	- 5,998,000
30-34	3,070	2,329,000	4,329,000	400,000	37,009,000	40,103,000	3,964,000
35-39	2,169	1,326,000	3,991,000	311,000	35,962,000	29,066,000	12,524,000
40-44	1,424	607,000	3,318,000	204,000	31,684,000	17,852,000	17,961,000
45-49	1,625	468,000	4,469,000	238,000	47,718,000	18,386,000	34,507,000
50-54	1,400	203,000	4,158,000	178,000	53,893,000	12,702,000	45,730,000
55-59	997	43,000	2,692,000	95,000	49,830,000	6,156,000	46,504,000
60-64	413		690,000	19,000	25,214,000	1,300,000	24,623,000
65-	92		61,000	1,000	4,987,000	117,000	4,932,000
Totals	19,142	11,124,000 +	30,455,000 +	2,263,000 +	343,942,000 =	387,784,000 -	173,910,000

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE M

### WOMEN TEACHERS

Summary of the values of the contingent benefits and contingent future contributions as at 31 December 1961, under The Teachers' Superannuation Act, with amendments to date, in respect of the 38,258 women who were considered as employed at the end of the calendar year 1961.

Age last Birthday	Number of Women	Value of Future Benefits			Total Liabilities	Value of Future Contributions (6% + 6%)	Net Liability
		On quitting the profession	On death in service	On being pensioned			
		\$	with eligible dependants	without eligible dependants	\$	\$	\$
-24	12,791	13,053,000	3,000	915,000	28,877,000	49,907,000	-21,030,000
25-29	5,349	6,402,000	3,000	779,000	21,279,000	27,445,000	- 6,166,000
30-34	3,069	2,894,000	3,000	815,000	21,951,000	22,189,000	- 238,000
35-39	2,358	1,311,000	4,000	768,000	25,269,000	18,417,000	6,852,000
40-44	2,332	817,000	7,000	797,000	33,686,000	17,461,000	16,225,000
45-49	3,555	660,000	19,000	1,153,000	67,450,000	22,789,000	44,661,000
50-54	3,527	277,000	43,000	1,092,000	86,557,000	17,919,000	68,638,000
55-59	3,240	65,000	55,000	817,000	99,242,000	10,486,000	88,756,000
60-64	1,517		32,000	284,000	48,611,000	3,194,000	45,417,000
65-	520		4,000	27,000	16,240,000	209,000	16,031,000
Totals	38,258	25,479,000 +	173,000 +	7,447,000 +	449,162,000	- 190,016,000	= 259,146,000



# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE N

### MEN PENSIONERS

as at 31 December 1961

Summary of Liabilities for pensions in force as at 31 December 1961

Attained age group at 31.12.1961	Numbers of Men Pensioners			Aggregate annual pensions in force at end of 1961	Capitalized value of future payments
	with wives eligible for allowances	without wives eligible for allowances	Totals		
-49	4	1	5	\$7,259	\$87,000
50-54	5	3	8	10,235	122,000
55-59	35	3	38	100,940	1,278,000
60-64	95	17	112	405,973	5,128,000
65-69	319	52	371	1,410,485	15,732,000
70-74	216	45	261	787,138	7,463,000
75-79	86	32	118	261,714	2,026,000
80-84	27	29	56	106,275	624,000
85-89	18	15	33	63,183	310,000
90-94	6	8	14	22,802	78,000
95-99		2	2	4,223	9,000
Totals	811	207	1,018	\$3,180,227	\$32,857,000
Averages	Age 69.3	Age 73.6	Age 70.2	\$3,124	\$32,276

There is an additional liability of \$17,000 for one widower and five families of orphans receiving dependants' allowances.

# ONTARIO TEACHERS' SUPERANNUATION FUND

## SCHEDULE O

### WOMEN PENSIONERS AND WIDOWS WITH ALLOWANCES

as at 31 December 1961

#### Summary of Liabilities for Pensions in Force

Attained age group at 31.12.1961	Former women teachers in receipt of pensions				Wives who were widowed after 1949 in receipt of allowances			Wives who were widowed before 1949 (granted allowances in 1955)		
	Number of Women	Aggregate annual pensions	Value of future payments	Number of Widows	Aggregate annual pensions	Value of future payments	Number of Widows	Annual pension \$300 p.a.	Value of future payments	
		\$	\$		\$	\$		\$	\$	
35-39	1	1,296	21,000	1	300	5,000				
40-44	16	12,556	191,000	11	10,641	172,000		300	5,000	
45-49	49	59,044	857,000	22	26,587	410,000		1,500	22,000	
50-54	187	295,181	4,030,000	57	66,123	971,000		1,200	16,000	
55-59	559	1,429,125	17,580,000	66	91,903	1,260,000		6,600	82,000	
60-64	1,036	2,374,795	26,052,000	69	94,373	1,174,000		7,200	78,000	
65-69	863	1,425,890	13,259,000	66	96,434	1,048,000		5,100	38,000	
70-74	453	567,829	4,270,000	57	69,453	636,000		5,100	41,000	
75-79	313	318,416	1,842,000	54	57,019	421,000		3,900	16,000	
80-84	147	130,515	569,000	41	34,469	196,000		1,500	5,000	
85-89	56	52,450	169,000	22	16,289	68,000				
90-94	8	5,703	14,000	4	2,622	8,000				
95-99										
Totals	3,688(a)	6,672,800	68,854,000(a)	470(b)	566,213	6,369,000(b)	132	39,600	350,000	
Averages	Age 70.4	\$1,809	\$18,670	Age 65.7	\$1,205	\$13,551	Age 72.7	\$300	\$2,652	

(a) Included in these figures are 3 women with eligible dependent children and 15 each with an eligible dependent husband, and 6 women with joint and survivorship female co-annuitants; the liability for reversions to the children and to the 15 men is \$16,000, and for reversions to the co-annuitants it is \$14,000.

(b) Included in these figures are 60 widows with eligible dependent children; the liability for reversionary benefits to the children is \$8,000.







